

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2014 Levee Maintenance Deficiency Summary Report**

**Overall LMA & Unit Ratings, including USACE Erosion Survey**

**Sacramento River Basin**

<b>MA0016</b>	Overall LMA Rating	Total LMA Miles						
<b>Sutter Maintenance Yard Maintenance Area 0016</b>	<b>A</b>	<b>4.06</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation					0.05			
Encroachments					0.25	0.05		
Animal Control	0.01		0.01	0.25%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.05			
<i>LMA Totals:</i>	0.01	0.00	0.01	0.25%	0.35	0.05	0.00	0.00

**Flood Control Project Maintenance  
Levee Inspections**  
**LMA District Cover Sheet**  
**Fall 2014 Levee Inspection Results**

**Sutter Maintenance Yard Maintenance Area 0016**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	

\*\* Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

\*

SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments


**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2014 Levee Inspection Results**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway			Bank	Unit Miles
Unit No. 01 Feather River			Right	4.06
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>A</b>	
Date of Inspection	03/18/2014 - 03/18/2014		11/19/2014 - 11/19/2014	
DWR Inspector	Matthew Hoffman		Matthew Hoffman	
Accompanied By	Jason Cooper Sutter Maintenance Yard		Jason Cooper Sutter Maintenance Yard	

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start		Rating **	A	Issue No.	3
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals				°
					°
DWR ID	DWR_MA0016_01_s _ 2013_3				
Action/Comments					
Inspector Comments: The O&M manuals are located at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Flood Preparedness & Training				°
					°
DWR ID	DWR_MA0016_01_s _ 2013_4				
Action/Comments					
Inspector Comments: Sutter maintenance yard employees attend the annual Flood Fight class put on by DWR inspector Bob Duffy.					

No Photos

LM Start		Rating **	A	Issue No.	5	
LM End		Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Emergency Supplies & Equipment				°	°
					°	°
DWR ID	DWR_MA0016_01_s _ 2013_5					
Action/Comments						
Inspector Comments: Emergency supplies and equipment are stored at the Sutter Maintenance Yard.						

No Photos

**\* Location**  
 LS : Land Side    N/A : Not Applicable  
 WS : Water Side  
 CR : Crown

**\*\* Rating**  
 A : Acceptable  
 M : Minimally Acceptable  
 U : Unacceptable  
 N : Not Inspected/Rated  
 C : Corrected  
 A/W : Acceptable but Monitor & Maintain

**+ Issue Type**  
 Ma : Maintenance Deficiency  
 Ob : Design & System Obsolescence  
 En : Enforcement

## Levee Inspection Report By Mile - Fall 2014

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	0.00	Rating **	A/W	Issue No.	13
LM End	4.09	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments				o
					o
DWR ID	DWR_MA0016_01_f_2014_13				
Action/Comments					
Material					

A yellow roller is shown compacting a dirt road on a construction site. The roller is moving from right to left, leaving a smooth, compacted path behind it. The surrounding area is a mix of dirt and some sparse vegetation. The sky is overcast.

LM Start	0.06	Rating **	M	Issue No.	2					
LM End	0.10	Issue Type +	En	Location *	LS					
Category	Earthen Levee			GPS Latitude/Longitude						
				Start	End					
Item	Vegetation			39.256618 °	39.257228 °					
				-121.636442 °	-121.636462 °					
DWR ID	DWR_MA0016_01_s_2012_2									
Action/Comments										
Landscaping										

A wide, gravel-covered driveway leads from the foreground towards a large, modern house in the background. The house features a dark, gabled roof and light-colored walls. It is surrounded by lush greenery, including tall trees and manicured lawns. The sky is clear and blue, suggesting a bright, sunny day. The overall scene depicts a well-maintained residential property.

LM Start	0.18	Rating **	M	Issue No.	15					
LM End	0.18	Issue Type +	En	Location *	LS					
Category	Earthen Levee			GPS Latitude/Longitude						
				Start	End					
Item	Encroachments			39.258437 °	39.258437 °					
				-121.636613 °	-121.636613 °					
DWR ID	DWR_MA0016_01_s_2012_15									
Action/Comments										
Building										

A photograph of a modern, elevated wooden building with a curved roof and a wide wooden ramp leading to a balcony. The building is surrounded by trees and greenery.

* Location	** Rating	+ Issue Type
LS : Land Side    N/A : Not Applicable	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
WS : Water Side CR : Crown	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	0.24	Rating **	M	Issue No.	20
LM End	0.24	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.259173 °	39.259173 °
				-121.636667 °	-121.636667 °
DWR ID	DWR_MA0016_01_f _ 2013_20				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

No Photos

LM Start	0.45	Rating **	U	Issue No.	7
LM End	0.49	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.262213 °	39.262825 °
				-121.636545 °	-121.636430 °
DWR ID	DWR_MA0016_01_s _ 2012_7				
Action/Comments					
Building					

Photo 1 of 1 : FA\_2014\_MA0016\_302\_7\_20141110\_00002.jpg



Levee mile 0.49. This photo shows the building and landscaping on the landside slope and toe.

LM Start	1.16	Rating **	U	Issue No.	11
LM End	1.16	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.272228 °	39.272228 °
				-121.633721 °	-121.633721 °
DWR ID	DWR_MA0016_01_s _ 2014_11				
Action/Comments					
Debris					
Inspector Comments: Concrete on landward levee slope. Spring 2014.					

Photo 1 of 1 : FA\_2014\_MA0016\_302\_11\_20141110\_00003.jpg



This photo was taken from the levee crown facing north looking at leftover concrete poured on the landward slope. Spring 2014.

\* Location  
LS : Land Side N/A : Not Applicable  
WS : Water Side  
CR : Crown

\*\* Rating  
A : Acceptable N : Not Inspected/Rated  
M : Minimally Acceptable C : Corrected  
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type  
Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
En : Enforcement

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	1.44	Rating **	M	Issue No.	1
LM End	1.44	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.276170 °	39.276170 °
				-121.632598 °	-121.632598 °
DWR ID	DWR_MA0016_01_f_2014_1				
Action/Comments					
Inspector Comments: FS_ID:36307					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Inlet heavily vegetated may need to be cleared					
on 5/14/2013 SBFCA project recommends replacing in accordance					
with title 23/14/2013 Same as last inspection 11/6/2013 Same as					
last inspection 5/19/2014 SBFCA project had levee access blocked.					
Could not get to pipe.					
FIELD_STRUCT_DESC: 36 inch steel drain pipe approximately 16-feet					
below the crown. Headwall and Model No. 100 flapgate of WS toe.					
Headwall and 24-inch concrete standpipe drop-inlet located					
approximately 1000-feet west of levee crown just on west side of canal.					
O&M Sac 148 Revision: February 2011					
FS Date: 5/20/2014 10:23:55 AM					

No Photos

LM Start	1.64	Rating **	M	Issue No.	12
LM End	1.64	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.278978 °	39.278978 °
				-121.633278 °	-121.633278 °
DWR ID	DWR_MA0016_01_s_2014_12				
Action/Comments					
Prunings					
Inspector Comments: Dead Prune trees placed on landward levee slope. Spring 2014.					

Photo 1 of 1 : FA\_2014\_MA0016\_302\_12\_20141110\_00004.jpg



This photo was taken from the levee crown facing north looking at prunings and a dead tree placed at the landward levee toe. Spring 2014.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N : Not Inspected/Rated</b> C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	1.70	Rating **	M	Issue No.	6
LM End	1.70	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.279812 °	39.279812 °
				-121.632987 °	-121.632987 °
DWR ID	DWR_MA0016_01_f_2014_6				
Action/Comments					
Inspector Comments: FS_ID:36309					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe is partially buried at LS toe and shows heavy corrosion. Unable to locate headwalls on either side of levee. Pipe should be cleared of soil and inspected (suspect heavy corrosion throughout pipe)					
5/14/2013 SBFCA project recommends replacing in accordance with title 23					
5/14/2013 Same as last inspection					
11/6/2013 Same as last inspection					
5/19/2014 SBFCA project had levee access blocked. Could not get to pipe.					
FIELD_STRUCT_DESC: 12-inch CM Storm drain pipe through the levee 14.5 feet below the crown. Slide gate on the waterward end. (O&M entry-As built available 50-4-2193A).					
FS Date: 5/20/2014 10:25:11 AM					

No Photos

LM Start	2.85	Rating **	M	Issue No.	14
LM End	3.08	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.293675 °	39.296748 °
				-121.636615 °	-121.638192 °
DWR ID	DWR_MA0016_01_s_2012_14				
Action/Comments					
Ditch					

Photo 1 of 2 : FA\_2014\_MA0016\_302\_14\_20141110\_00005.jpg



Agricultural ditch land side slope and toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable  N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	2.85	Rating **	M	Issue No.	14 (cont)	
LM End	3.08	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			39.293675 °		39.296748 °
				-121.636615 °		-121.638192 °
DWR ID	DWR_MA0016_01_s_2012_14					
Action/Comments						
Ditch						

Photo 2 of 2 : FA\_2014\_MA0016\_302\_14\_20141110\_00006.jpg



Land side ditch levee mile 3.08.

LM Start	2.86	Rating **	M	Issue No.	8
LM End	2.86	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.293774 °	39.293774 °
				-121.636612 °	-121.636612 °
DWR ID	DWR_MA0016_01_f_2014_8				
Action/Comments					
Inspector Comments: FS_ID:36323					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Inlet and outlet largely covered in sediment and vegetation. This should be cleared 5/14/2013 SBFCA project recommends replacing in accordance with title 23/14/2013 Same as last inspection 11/6/2013 Same as last inspection 5/19/2014 SBFCA project appears to have removed pipe.					
FIELD_STRUCT_DESC: 18-inch concrete pipe through the levee approximately 15-feet below the crown. Headwalls on both ends and a Model No. 100 slide gate on WS toe. O&M Sac 148 Revision: February 2011.					
FS Date: 5/20/2014 10:32:14 AM					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	2.87	Rating **	M	Issue No.	25
LM End	2.87	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.293865 °	39.293865 °
				-121.636690 °	-121.636690 °
DWR ID	DWR_MA0016_01_f_2013_25				
Action/Comments					
Landscaping					

No Photos

LM Start	3.39	Rating **	M	Issue No.	9
LM End	3.39	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.301218 °	39.301218 °
				-121.638332 °	-121.638332 °
DWR ID	DWR_MA0016_01_f_2014_9				
Action/Comments					
Inspector Comments: FS_ID:36325					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Concrete headwall on LS toe is cracked through middle and pipe is buried in soil. pipe appears corroded5/14/2013					
SBFCA project recommends replacing in accordance with title					
23/14/2013 Same as last inspection11/6/2013 Same as last					
inspection5/19/2014 Same as last inspection.					
FIELD_STRUCT_DESC: 1 of 2: 24-inch CMP drain pipe 16.6-feet					
below the crown. Concrete headwalls on both ends. Flap gate on the					
waterward end.					
FS Date: 5/20/2014 10:38:04 AM					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2014**

**Sutter Maintenance Yard Maintenance Area 0016**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	3.39	Rating **	M	Issue No.	10
LM End	3.39	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.301218 °	39.301218 °
				-121.638332 °	-121.638332 °
DWR ID	DWR_MA0016_01_f_2014_10				
Action/Comments					
Inspector Comments: FS_ID:36324 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Pipe burried on LS toe and should be inspected along with adjacent 24-inch once uncovered5/14/2013 SBFCA project recommends replacing in accordance with title 23/14/2013 Same as last inspection11/6/2013 Same as last inspection5/19/2014 Same as last inspection. FIELD_STRUCT_DESC: 2 of 2: 24-inch CMP drain pipe through the levee 16.6-feet below the crown. Headwalls at both ends and a Flap gate on the WS toe. FS Date: 5/20/2014 10:36:52 AM					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable                      N : Not Inspected/Rated M : Minimally Acceptable        C : Corrected U : Unacceptable                  A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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